Amendments to the Claims

1. *(Currently Amended)* A method for transmitting data units ~~(DATA)~~ by way of a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(204j-204k)~~, the method having the following steps:

(a) supplying a plurality of codes ~~(SD)~~, each code ~~(SD)~~ comprising a number of code sections ~~(SD0-SDk)~~ that corresponds to the number of transmission lines ~~(204j-204k)~~ of the transmission medium, each code section ~~(SD0-SDk)~~ of a code ~~(SD)~~ on an associated transmission line ~~(204j-204k)~~ having a predetermined signal value, and the sum of the signal values being substantially constant for each transmitted code ~~(SD)~~;

(b) for each data unit ~~(DATA)~~ to be transmitted, selection of a code ~~(SD)~~ from the plurality of codes; and

(c) supplying the selected code ~~(SD)~~ for a transmission by way of the transmission medium ~~(204)~~.

2. *(Currently Amended)* A method as claimed in claim 1, in which the data units ~~(DATA)~~ and the codes ~~(SD)~~ to be transmitted are supplied in accordance with a predetermined clock pulse ~~(CLK)~~, wherein in step (b) at each new clock pulse ~~(CLK)~~ a new code ~~(SDnext)~~ is selected, based on the preceding code ~~(SDlast)~~ and the new data unit ~~(DATA)~~.

3. *(Currently Amended)* A method as claimed in ~~claim 1 or 2~~claim 1, in which the code ~~(SD)~~ is a binary code, each of the codes ~~(SD)~~ comprising the same number of code sections with a high logic level and code sections with a low logic level.

4. *(Currently Amended)* A method as claimed in claim 3, in which a data unit ~~(DATA)~~ comprises one bit or a plurality of bits.

5. *(Currently Amended)* A method as claimed in ~~anyone of claims 1 to 4~~claim 1, in which the sum of the signal values is substantially zero.

6. *(Currently Amended)* A device for transmitting data units ~~(DATA)~~ by way of a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(204j-204k)~~, having

- an input for receiving the data units ~~(DATA)~~;

- a memory ~~(226)~~, in which a plurality of codes ~~(SD)~~ is stored, each code ~~(SD)~~ comprising a number of code sections ~~(SDo-SDk)~~ that corresponds to the number of transmission lines ~~(204j-204k)~~ of the transmission medium, each code section of a code on an associated transmission line having a predetermined signal value, and the sum of the signal values being substantially constant for each transmitted code ~~(SD)~~;

- a selection device, which is actively connected with the input and the memory in order to select and supply from the memory ~~(226)~~ a code for a data unit ~~(DATA)~~ received at the input; and

- an output that is actively connected with the selection device in order to supply the code ~~(SD)~~ supplied by the same for a transmission by way of the transmission medium ~~(204)~~.

7. *(Currently Amended)* A device as claimed in claim 6, with a clock input ~~(CLK)~~ for receiving a clock pulse, a data unit appearing at the input at each new clock pulse, and the selection device selecting and supplying, on the basis of the preceding code ~~(SDjast)~~ and a new data unit, a new code ~~(SDnext)~~ for the new clock pulse.

8. *(Currently Amended)* A method for receiving data units by way of a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(204j-204k)~~, the data units having been sent in accordance with a method as claimed in ~~claims 1 to 5~~ claim 1, the method comprising the following steps:

(a) receiving the transmitted codes ~~(SD)~~ transmitted on the transmission medium ~~(204)~~;

(b) assigning the received codes to the appropriate data units; and

(c) outputting the data units.

9. *(Currently Amended)*   A method as claimed in claim 8, comprising the following step

-       recovery of a clock signal based on transitions of the codes (SD) transmitted by way of the transmission medium (204).

10. *(Currently Amended)*   A device for receiving data units from a transmission medium (204) that comprises at least three adjacent transmission lines (2041-204k), the data units being sent by a device as claimed in claim 6 or 7claim 6, having

-       an input for receiving the codes from the transmission medium (204);

-       an arrangement for assigning the received codes to the corresponding data units; and

-       an output for outputting the data units.

11. *(Currently Amended)*   A device as claimed in claim 10, having a timing recovery circuit (242) for recovering a clock signal based on transitions of the codes (SD) transmitted by way of the transmission medium (204).

12. *(Cancel)*   A method for transmitting data units by way of a transmission medium (204) having at least three adjacent transmission lines (2041-204k), the method comprising the following steps:

-               transmitting the data units in accordance with a method as claimed in anyone of claims 1 to 5; and

-               receiving the data units in accordance with a method as claimed in claim 8 or 9.

13. *(Currently Amended)*   A device for transmitting data units, having

-       a device for transmitting data units as claimed in claim 6 or 7claim 10;

-       a transmission medium (204) that is actively connected with the device for transmitting and has at least three adjacent transmission lines (2041-204k); and

-       a device actively connected with the transmission medium (204) for receiving data units as claimed in claim 10 or 11.